

WE CLAIM

1. Apparatus for moving pieces of lumber along an inclined path from a group of such pieces at a first in-feed location and delivering them at a second out-feed location normally one
5 stick at a time with said second location being disposed at a higher elevation than said first location, said apparatus comprising: a rigid support structure; first and second rigid frame assemblies; and means mounting said frame assemblies on said support structure for movement relative thereto and one
10 another along predetermined inclined paths, said first and second rigid assemblies each having a plurality of plates mounted thereon, said plates being spaced apart from one another on their respective rigid frames and disposed such that the plates on one frame assembly are interleaved with the
15 plates on the other frame assembly, said plates on the respective frame assemblies having a leading edge angularly disposed relative to said inclined path and wherein the leading edge of plates in proximity of the in-feed location are of greater depth than that of plates located downstream therefrom
20 in a direction toward the out-feed location.

2. Apparatus for moving pieces of lumber comprising a first

and a second pair of rigid frame assembly units each having a plurality of parallel spaced apart plates mounted thereon, said rigid units being disposed such that the plates on one unit are interleaved with the plates on the other unit and disposed
5 in overlapping relation along an inclined path on a support structure from an in-feed end to an out-feed end and in which the out-feed end is at a higher elevation than the in-feed end, means mounting said units on said support structure for movement in a direction parallel to said inclined path, and
10 drive means comprising a linkage system connected to said respective units to reciprocate the same in synchronized out of phase relation, each said plate having a leading edge of selected depth and wherein that depth is greater for plates proximate the in-feed end than that of plates downstream
15 therefrom toward the out-feed end.

3. A conveyor as defined in claim 2 wherein said drive linkage comprises a power driven shaft having a crank arm attached thereto and link means connecting the same to respective ones of said units.

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4. The apparatus as defined in claim 2 wherein said rigid units are reciprocally moveable along linear paths.

5. The apparatus of claim 1 including an additional nose piece on a first one of said plates at the in-feed end of the apparatus.

5 6. The apparatus of claim 2 including an additional nose piece on a first one of said plates at the in-feed end of the apparatus.

10 7. The apparatus of claim 5 wherein said additional nose piece has a leading edge that projects forwardly beyond and spaced from the leading edge of the plate associated therewith.

8. The apparatus of claim 6 wherein said additional nose piece has a leading edge that projects forwardly beyond and
15 spaced from the leading edge of the plate associated therewith.

9 The apparatus of claim 1 including an additional nose piece and means detachably mounting said additional nose piece on a first one of said plates at the in-feed end of the

apparatus

10. In an apparatus having a first and a second pair of rigid frame assembly units movably mounted on a frame for movement relative thereto and one another, each such unit
5 having a plurality of parallel spaced apart plates with the rigid units disposed such that the plates on one unit are interleaved in alternate relation with the plates on the other unit in overlapping relation along an inclined path, each such plate having an article supporting face surface and a leading
10 edge angularly disposed relative thereto and drive means comprising a linkage system connected to said respective units to reciprocate the same in synchronized out of phase relation the improvement comprising each said plate having a leading edge of selected depth and wherein that depth is greater for
15 plates proximate the in-feed end of the apparatus than that of plates downstream therefrom toward an out-feed end.

11. Apparatus for moving pieces of lumber along an inclined path from a group of the same at a first in-feed location and
20 delivering them in sequence one after another normally one stick at a time at a second out-feed location disposed at a

higher elevation than said first location, said apparatus comprising a rigid support structure; first and second rigid frame assembly units; means mounting said first and second units on said support structure for reciprocal movement 5 relative thereto along parallel inclined paths; a first and second plurality of plates mounted respectively on said first and second rigid units, said plates being spaced apart from one another on their respective rigid units and arranged with the plates on one unit interleaved in alternate relation with the 10 plates on the other unit, each said plate on the respective units having an upwardly facing article supporting face and a leading edge disposed generally transverse to said inclined paths and wherein such leading edge of plates proximate said in-feed end is of greater depth than that of plates downstream 15 therefrom.

12 The apparatus of claim 1 including a hopper disposed proximate said first location, said hopper having a bottom wall for supporting a plurality of pieces of said lumber and sloping in a direction downwardly in a direction toward the plates at 20 the in-feed end of the apparatus.

13 The apparatus of claim 2 including a hopper disposed

proximate said first location, said hopper having a bottom wall for supporting a plurality of pieces of said lumber and sloping in a direction downwardly in a direction toward the plates at the in-feed end of the apparatus

5 14. The apparatus of claim 10 including a hopper disposed proximate said first location, said hopper having a bottom wall for supporting a plurality of pieces of said lumber and wherein said bottom wall slopes downwardly in a direction toward the plates at the in-feed end of the apparatus

10 15. The apparatus of claim 11 including a hopper disposed proximate said first location, said hopper having a bottom wall for supporting a plurality of pieces of said lumber and wherein said bottom wall slopes downwardly in a direction toward the plates at the in-feed end of the apparatus

15 16. The apparatus of claim 13 including an additional nose piece on a first one of said plates at the in-feed end of the apparatus.

17. The apparatus of claim 14 including an additional nose
20 piece on a first one of said plates at the in-feed end of the

apparatus.

18. The apparatus of claim 15 including an additional nose piece on a first one of said plates at the in-feed end of the
5 apparatus.

19. The apparatus of claim 16 wherein said additional nose piece has a leading edge that projects forwardly beyond and spaced from the leading edge of the plate associated therewith.

20. The apparatus of claim 17 wherein said additional nose
10 piece has a leading edge that projects forwardly beyond and spaced from the leading edge of the plate associated therewith.

21. The apparatus of claim 18 wherein said additional nose piece has a leading edge that projects forwardly beyond and spaced from the leading edge of the plate associated therewith.

15 22. The apparatus of claim 1 wherein said pieces of lumber are nominal 2" x 4" or 2"x 3" of various lengths, wherein the first plate at the in-feed end is on said first rigid unit, wherein such plate has a leading edge whose depth is 1.5", wherein the leading edge of the next succeeding plate on that

same unit is 1" and wherein the plate disposed between the two forgoing plates is 1" and located on said second rigid unit.

23. The apparatus of claim 2 wherein said pieces of lumber
5 are nominal 2" x 4" or 2"x 3" of various lengths, wherein the first plate at the in-feed end is on said first rigid unit, wherein such plate has a leading edge whose depth is 1.5", wherein the leading edge of the next succeeding plate on that same unit is 1" and wherein the plate disposed between the two
10 forgoing plates is 1" and located on said second rigid unit.

24. The apparatus of claim 11 wherein said pieces of lumber are nominal 2" x 4" or 2"x 3" of various lengths, wherein the first plate at the in-feed end is on said first rigid unit, wherein such plate has a leading edge whose depth is 1.5",
15 wherein the leading edge of the next succeeding plate on that same unit is 1" and wherein the plate disposed between the two forgoing plates is 1" and located on said second rigid unit.

25. The apparatus of claim 12 wherein said pieces of lumber
20 are nominal 2" x 4" or 2"x 3" of various lengths, wherein the first plate at the in-feed end is on said first rigid unit, wherein such plate has a leading edge whose depth is 1.5",

wherein the leading edge of the next succeeding plate on that same unit is 1" and wherein the plate disposed between the two forgoing plates is 1" and located on said second rigid unit.